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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,397	07/09/2003	Fabrice Villaume	L7307.03150	8487

7590 04/20/2006

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EXAMINER

NGUYEN, THU V

ART UNIT PAPER NUMBER

3661

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/615,397	<b>Applicant(s)</b> VILLAUME ET AL.	
	<b>Examiner</b> Thu Nguyen	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on amendment on January 17, 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The amendment filed on January 17, 2006 has been entered. By this amendment, claims 1-13 have been canceled, claims 14-21 are pending in the application.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 14-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 14, lines 26-27, the claimed “and of its end so that the pilot may compare the positions of the symbol and the end of the runway” is not disclosed in the specification. The indicated sections on page 4 and 8 just teach assisting the pilot to ascertain the moment the pilot can interrupt the takeoff, but do not teach how the head up display the assisting information. Especially, the specification does not teach that the pilot compares the distance between the display symbol with the end of the runway as asserted in the claim. Claims 15 and 20 are similarly rejected. Other claims are rejected as being dependent on the rejected base claim

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coquin et al (US 5,668,541) in view of Sekine et al (US 6,067,497) and further in view of Cleary et al (US 4,638,437), Middleton et al (US 5,499,025) and Weiss (US 2005/0057701)

As per claim 14, Coquin teaches a process for aiding the driving of an aircraft running over the ground in an acceleration phase with a view to takeoff (col.2, lines 12-14; col.3, lines 6-11), the process comprises: a current speed (col.2, line 42) and a value K1 representing acceleration/deceleration of the aircraft (col.2, lines 40-41; col.3, lines 65-67) are determined; and calculating the stopping position of the aircraft from distance  $(v_{11}t^2/2K1t)$  and the current position  $D_{1t}$  of the aircraft (col.3, line 62); presenting the stopping position to a driver (col.4, lines 1-5). Coquin does not explicitly disclose that the acceleration is a predetermined deceleration value corresponding to the deceleration during emergency braking and does not explicitly disclose calculating distance  $df$  in a separate procedure from the calculating stopping position, presenting the stopping distance to the driver, and displaying a symbol on the windscreen of the aircraft using heads-up display. However, Coquin teaches stopping distance  $df$   $(v_{11}t^2/2K1t)$  (col.3, line 62) with  $K1t$  is a deceleration value ( $K1t < 0$ ) and Sekine teaches calculating stopping distance with a predetermined reference deceleration value (col.4, lines 10-

Art Unit: 3661

17), moreover, replacing the reference deceleration value taught by Sekine with a known emergency deceleration braking value would have been obvious. Further, Cleary teaches presenting the stopping distance to the driver with respect to the end of the runway (col.6, lines 49-62), and Middleton suggests using head up display to display the stopping symbols (col.2, lines 18-22, col.5, lines 13-27) with the motivation from Weiss that projecting symbols on the field of view of the pilot to reduce the pilot task such as landing, aiming toward a target, etc. would have been known (para 0004). Moreover, since Cleary teaches displaying stopping position with respect to the end of the run way, the pilot obviously can ascertain the moment when the takeoff can be interrupted (when he sees the stop symbols approaches the end of the runway) to avoid overshooting the end of the runway. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to determine stopping distance and to present the distance to the driver as taught by Sekine and Cleary in the display of Coquin and to replace the display of Coquin with a well known head up display as taught in Middleton in view of Weiss in order to inform the driver of the capability of stopping without passing the run way as suggested by Cleary in col.6, lines 49-62, and reduce the pilot the tasks required during the flight such as landing as taught by Weiss in para 0004.

As per claim 15, refer to claim 14 above.

As per claim 16-18, using inertial devices for determining speed and deceleration of the airplane, and determining the current position of the vehicle using GPS devices would have been well known.

As per claim 19, aiding the pilot for running the vehicle over the ground would have been well known.

As per claim 20-21, refer to claims 14 and 21 above.

### ***Response to Arguments***

In response to applicant's argument on page 8, last paragraph, the deceleration value K1 taught by Coquine can be any deceleration value, since the predetermined deceleration is just one specific deceleration chosen to determine a distance the vehicle would travel until it reaches the specific predetermine deceleration, replacing the deceleration value K1 with specific deceleration value is within the common knowledge of an ordinary person skilled in the art and an obvious matter of choice.

In response to applicant's argument on page 8, last three lines, and on page 9, displaying the stopping position of the aircraft with respect to the end runway is taught by Coquin (col.4, lines 1-5), Cleary suggests how the stopping position with respect to the runway should be presented (col.6, lines 49-62), and Middleton teaches using head up display to display the stopping position (col.2, lines 10-12; col.5, lines 13-27), also, Weiss teaches the motivation for projecting symbols information on the view point of the pilot in para 0004 (that is reducing the pilot physical task required by the flight such as aiming toward the target or landing). An ordinary person skilled in the art at the time the invention was made would be able to use the stopping distance calculated by the combined teaching of Conquin and Sekine to display a

Art Unit: 3661

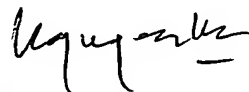
symbol indicating the calculated stopping distance on the view point of the pilot as taught by Cleary, Middleton and Weiss.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (571) 272-6967. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 12, 2006

  
**THU V. NGUYEN**  
**PRIMARY EXAMINER**